

Applicant:	Hicks
Appl. No.	10/686747
Examiner:	Kostak
Docket No.	705397.4008

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Original) A method for automatic geometric alignment in a CRT projection system comprising the steps of
displaying a first image pattern onto a screen of the CRT projection system,
wherein the screen includes a Fresnel lens,
reflecting back a portion of the light from the first image off of the Fresnel lens,
identifying the boundaries of the screen,
calculating optimum locations based on screen boundary coordinates,
displaying a second image pattern,
moving the second pattern to a first optimum location,
reporting the actual location of the second image pattern,
comparing the actual location of the second image pattern with the coordinates of the first optimum location, and
aligning the second image pattern with the first optimum location.
2. (Original) The method of claim 1 wherein the first image pattern comprises a flat green field projected onto the screen and onto an over scanned area.

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3. (Original) The method of claim 2 wherein the step of identifying the boundaries of the screen includes analyzing the difference in brightness of the reflected images reflected off of the screen and the over scanned area.

4. (Cancelled)

5. (Original) The method of claim 1 wherein aligning the second image pattern with the first calculated optimum location includes adjusting the size or centering of the second image pattern.

6. (Original) The method of claim 1 further comprising the steps of
moving the second pattern to a second optimum location,
reporting the actual location of the second image pattern,
comparing the actual location of the second image pattern with the coordinates
of the second optimum location, and
adjusting the position of the second image pattern to align the second image
pattern with the first calculated optimum location.

7. (Original) The method of claim 1 wherein the step of calculating optimum locations based on screen boundary coordinates includes calculating n optimum locations and further comprising the steps of

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moving the second pattern to n optimum locations,
reporting the actual location of the second image pattern at each of the n optimum locations,
comparing the actual location of the second image pattern at each of the n optimum locations with the coordinates of each of the n optimum locations, and
aligning the second image pattern at each of the n optimum locations with the each of the n optimum locations.

8. (Currently Amended) A method for automatic convergence alignment in a CRT projection system comprising the steps of

displaying a first image pattern a first location on a screen comprising a Fresnel lens,

reflecting back a portion of the light from the first image off of the Fresnel lens,
identifying and storing the coordinates of the first location of the first image pattern,

moving the first image pattern to a second location,
identifying and storing the coordinates of the second location of the first image pattern,

displaying a second image pattern,
adjusting the second image pattern to move the second image pattern to the top center of the first location of the first image pattern,

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reporting the actual location of the second image pattern,
comparing the actual location of the second image pattern with the coordinates
of the first location of the first image pattern, and
aligning the second image pattern with the first location of the first image pattern.

9. (Cancelled)

10. (Original) The method of claim 8 further comprising steps of
moving the second image pattern to a second location,
adjusting the second image pattern to move the second image pattern to the top
center of the second location of the first image pattern,
reporting the actual location of the second image pattern,
comparing the actual location of the second image pattern with the coordinates
of the second location of the first image pattern, and
aligning the second image pattern with the second location of the first image
pattern.

11. (Original) The method of claim 10 further comprising the steps of
displaying a third image pattern,
adjusting the third image pattern to move the third image pattern to the top
center of the first location of the first image pattern,

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reporting the actual location of the third image pattern,

comparing the actual location of the third image pattern with the coordinates of the first location of the first image pattern, and

aligning the third image pattern with the first location of the first image pattern.

12. (Original) The method of claim 11 further comprising steps of

moving the third image pattern to a second location,

adjusting the third image pattern to move the third image pattern to the top center of the second location of the first image pattern,

reporting the actual location of the third image pattern,

comparing the actual location of the third image pattern with the coordinates of the second location of the first image pattern, and

aligning the third image pattern with the second location of the first image pattern.

13. (Original) The method of claim 12 wherein the first, second and third image patterns comprise a movable monochromatic geometric shape.

14. (Cancelled)

15. (Original) The method of claim 10 further comprising the steps of

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moving the first image pattern to n locations,
identifying and storing the coordinates of the first image pattern at each of the n locations,
moving the second image pattern to each of the n locations,
adjusting the second image pattern to move the second image pattern to the top center of each of the n locations of the first image pattern,
reporting the actual location of the second image pattern at each of the n locations,
comparing the actual location of the second image pattern at each of the n locations with the coordinates of the first image pattern at each of the n locations, and
aligning the second image pattern at each of the n locations with each of the n locations of the first image pattern.

16 - 23. (Cancelled)